Attachment 15

Reduce Delta Water Dependence

Integrated Regional Water Management Implementation
Prop 84, Round 1

Santa Ana Watershed Project Authority

Santa Ana One Water One Watershed IRWM
Prop 84, Round 1 Implementation Proposal

Attachment 15

Reduce dependence of the Sacramento- San Joaquin Delta

One of the core visions of the One Water One Watershed (OWOW) plan is to have a sustainable Santa Ana River Watershed. A sustainable watershed is contingent upon living with our water means and adjusting to changes conditions. Strategies were developed throughout the OWOW plan to make the region less dependent on water sources elsewhere and more dependent on local water sources.

Chapter 5.1, Water Supply Reliability of the OWOW plan discusses a number of planning scenarios and broad-based strategies for reducing dependence on Sacramento- San Joaquin Delta Water supplies. Uncertainties in the Delta were considered in detailed scenarios, among other factors, relative to estimated supply needs in the region. The following table from the One Water One Watershed Water supply reliability chapter summarizes water management strategies to respond to these uncertainties and how they may be implemented to specifically benefit the region

Table 5.1-10 summarizes the estimated benefits of the various management strategies developed in the OWOW process. In those cases where there is not enough information to adequately quantify the benefit; it has been labeled “more investigation”.

Table 5.1-10SummaryofWater Management Strategies and Estimated Benefits

No.	Strategy (in no particular order)	Estimated Benefit (AFY)
1	Comply with 20% reduction by 2020	50,000
2	Increase water use efficiency	More Investigation
3	Reduce evapotranspiration	More Investigation
4	Base load off imported water	70,000
5	Construct delta conveyance facility	More Investigation
6	Capture more storm water	25,000
7	Recycle wastewater flowing to the ocean	215,000
8	Recycle the Inland Empire Brine Line Effluent	38,000
9	Import recycled water from outside the watershed	More Investigation
10	Ocean desalination	70,000
11	Recover tainted groundwater basins	70,000
12	Increase storage (surface/groundwater)	More Investigation
13	Water banking (outside the watershed)emergency measures	
14	Emergency Measures	Preparation for catastrophic event
	TOTAL	**538,000**

Most of the strategies listed are self-explanatory, however the concept of "Base-Loading" may require additional elaboration. When water supply is available from the Delta and other sources, the idea is that the water be imported into the region and stored in groundwater basins for use in years when it is not available. This strategy is contrary to that employed by many water agencies when water purchases are made when supplies are scarce. In this scenario, water is transferred when water supplies are readily available.

One Water One Watershed Project Portfolio

The portfolio of projects primarily advances the following strategies from the water supply analysis: 6) capture more storm water; 7) recycle wastewater flowing to the ocean, and 11) recover tainted groundwater basins. Five projects increase our ability to capture and reuse storm water by making improvements or modifications to the flood system. Two projects in Orange County make water that would normally be placed in an ocean outfall available for use for recharge. And six projects recover water from tainted groundwater basins while improving the quality of those basins. These projects are discussed in detail in the workplan.

Project Ranking and Delta Water Imports

The close relationship between projects selected in this portfolio and the water supply strategies is not surprising. The table below summarizes the criteria used in ranking OWOW projects and in selecting projects for this portfolio. This table is from Chapter 7, Project Evaluation and Prioritization. The first of the criteria specifically states "reduction in imported water use…". Of all the criteria used in project ranking by the OWOW Steering Committee this was weighted the highest, or most important of the project criteria.

Table 7-1 Ranking Criteria and Performance Measures

Project evaluation criteria	Criteria Weights	Performance measures	Performance Measure Units	Performance Measure Weights
1. Provide water supply benefits	22%	Reduction in imported water use from recycling, desalination, storm water use, water transfers, surface water storage, groundwater storage and/or any other new source of water	AFY	90%
		Percentage of project area implementing water use efficiency or conservation best management practices	%	10%
2. Provide restoration and flood management benefits	10%	New or restored habitat area, and flood plain protected	Acres	100%
3. Provide water quality and salt management benefits	12%	Volume of water treated	mgd	50%
		Salt or contaminants removed	Tons/year	50%
4. Provide recreational benefits	5%	Area of open space and parks created	Acres	100%
5. Provide benefits and avoid adverse impacts to	4%	Percentage of project benefitting disadvantaged communities	%	50%

disadvantaged communities and Native American tribes		Percentage of project benefitting Native American tribes	%	50%
6. Reduce greenhouse gas emissions from water management activities	2%	Numeric estimates of reductions on greenhouse gas, and actions or project features to accomplish those reductions	1 to 5 Qualitative Score	100%
7. Increase resource-efficient land use and reduce impact on natural hydrology	8%	Percentage of project using Low Impact Development or other resource-efficient land use	%	50%
		Impacts or changes to natural hydrology	1 to 5 Qualitative Score	50%
8. Cost match	7%	Percent of project cost funded and secured from non-state funding	%	100%
9. Cost effectiveness	12%	Standardized unit cost indicator measuring cost per unit of benefit	$/[unit of benefit]; for example, $/AFY, $/mgd, $/acre	100%
10. Project readiness	9%	Phase of project development	1 to 5 Qualitative Score	100%
11. Increase active participation	9%	Number of Partners	1 to 5 Qualitative Score	50%
		Partners Role or level of participation	1 to 5 Qualitative Score	50%

Continued Reduction of Dependence on the Sacramento- San Joaquin Delta

SAWPA recently applied for a Planning Grant to update the OWOW plan. That planning grant application is currently recommended for funding by DWR staff. The scope of work presented in the grant summarizes the approach taken by SAWPA in updating the plan. The proposal description for the planning grant and plan update as submitted to DWR follows:

"SAWPA proposes the development of a new model in integrated regional water management planning that raises the bar so that all IRWM Plan Standards are met, all DWR IRWM program preferences are addressed, and our vision for the SAWPA IRWM Region is achieved. Expanding upon our current IRWM Plan called the "One Water One Watershed" Plan to be adopted in December of 2010, the proposed new integrated water management plan for the Santa Ana Region proposes a system-wide approach that creates a new template for collaboration and water management. Rather than focusing on traditional water supply reliability approaches which rely on continued imported water deliveries to meet growing water demands in the region, new approaches and planning will be implemented that lead first with a water demand reduction strategy, address the need for a fully functional watershed hydrology, meet water quality requirements and assures a reliable water supply that effectively deals with growing crises of climate change, imported water cutbacks and continued drought conditions. The emphasis of this planning model is that all sectors of our community (water suppliers, water consumers, stormwater managers, parks and recreation providers, environmental stewards, developers, etc.) would be encouraged to adopt a new water ethic that focuses on living within our means and living in the environment that nature has given us. Further, expanded outreach will be conducted to reach all stakeholders including Disadvantaged, Environmental Justice and Native American Tribal communities to assist their needs for safe and clean water supply. Collaboration at this level will result in more cost

effective, multi-beneficial and multi-jurisdictional projects that address water resource needs and environmental impacts of the SAWPA IRWM region."

The boldface text summarizes an approach by SAWPA that will continue to plan and implement projects that reduce water demand from the fragile Sacramento- San Joaquin Delta.